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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/627,162

07/25/2003

Stephan Kirchmeyer

CH-7855/STA-211

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03/21/2008

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EXAMINER

RONESI, VICKEY M

ART UNIT

PAPER NUMBER

1796

MAIL DATE

DELIVERY MODE

03/21/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/627,162	Applicant(s) KIRCHMEYER ET AL.	
	Examiner VICKEY RONESI	Art Unit 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 February 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 7-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 7-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 2/14/2008 has been entered.
2. The outstanding claim objections are withdrawn in light of applicant's amendment.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior office action.

3. Claims 7-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jonas et al (US 5,300,575) in view of Mochwald (US 4,728,399).

Jonas et al discloses a polymerization of 3,4-dialkoxythiophenes wherein 3,4-dialkoxythiophene (col. 2, lines 12-44), a polyacid (i.e., polyanion) (col. 2, lines 45-52), an oxidizing agent (col. 3, lines 11-15; col. 3, line 47 to col. 4, line 21), and strong inorganic acids (in cases where the polyacid is weakly acidic which intrinsically lowers the pH of the reaction mixture) (col. 4, lines 22-26) are dispersed in water (col. 3, lines 19-25). Jonas et al further teaches that the oxidizing agent is used in an amount of 0.1-2 equivalents per mol thiophene (col. 4, lines 15-21).

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Jonas teaches the use of strong acids to decrease pH in order to increase polymerization rate (col. 4, lines 22-25). Those acids include hydrochloric acid, sulfonic acid, and aromatic sulfonic acids. Given that Jonas teaches the use of strong acids which intrinsically decreases the pH, including pH as low as presently claimed, in order to increase polymerization rate, it would have been obvious to one of ordinary skill in the art to have a pH of 1.0 or less.

Jonas et al does not disclose the use the presently claimed peroxodisulfuric acid as an oxidizing agent in its composition; however, it does disclose that oxidizing agents that are typically used in oxidative polymerization of pyrrole are used in polymerizing dialkoxythiophene (col. 3, lines 12-13).

Moehwald discloses an electrically conductive polymer that is formed by treating polymer-forming monomers such as pyrroles and thiophenes with an oxidizing agent (col. 2, lines 11-13). Oxidizing agents which have proven to be useful are peroxyacids such as peroxodisulfuric acid (col. 3, lines 3-5).

Since Moehwald discloses that peroxodisulfuric acid is a particularly useful oxidizing agent in pyrrole polymerizations and given that Jonas et al is open to any oxidizing agent that is used in the oxidative polymerization of pyrrole, it would have been obvious to one of ordinary skill in the art to use peroxodisulfuric acid as an oxidizing agent in Jonas et al and thereby intrinsically have a polymerization at a pH of 1.5 or less since peroxodisulfuric acid and/or other strong inorganic acids are used to lower the pH and increase the polymerization rate.

Response to Arguments

4. Applicant's arguments with the now-entered after-final amendment filed on 1/14/2008 have been fully considered but they are not persuasive. Specifically, applicant argues that

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unexpected results with respect to light transmission and conductivity are obtained by the use of peroxodisulfuric acid and a low pH-value.

In response, the data is still not commensurate in scope with the scope of the claims and the examples are not proper side-by-side examples. Concerning the scope of the claims, the type of polysulfonic acid is generic to the polystyrene sulfonic acid in the examples. Case law holds that evidence of superior properties in one species insufficient to establish the nonobviousness of a subgenus containing hundreds of compounds. *In re Greenfield*, 571 F.2d 1185, 1189, 197 USPQ 227, 230 (CCPA 1978). With respect to proper side-by-side examples, Examples 13 and 15-18 and Comparative Example 3 are not proper side-by-side examples since there is less peroxodisulfuric acid oxidizing agent in Examples 13 and 15-18 (even when converted to molar amounts) than the sodium peroxodisulfate oxidizing agent in Comparative Example 3. Therefore, applicant has not established that a low pH like presently claimed results in improved transparency and conductivity (note that Example 14 shows that the oxidizing agent need not be peroxodisulfuric acid in order to impart desirable properties and that the type of oxidizing agent is not critical).

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vickey Ronesi whose telephone number is (571) 272-2701. The examiner can normally be reached on Monday - Friday, 8:30 a.m. - 5:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (571) 272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

3/18/2008

vr

/Vickey Ronesi/
Examiner, Art Unit 1796